

CLAIMS

1. A heat treatable coated article including a multi-layer coating supported by a glass substrate, wherein the coating comprises:
at least one infrared (IR) reflecting layer supported by at least the glass substrate; and
an overcoat located over at least the IR reflecting layer for protecting at least the IR reflecting layer, wherein the overcoat comprises an outer layer comprising silicon nitride and an underlayer comprising chromium oxide, wherein the outer layer and the underlayer of the overcoat are in direct contact with one another, with the outer layer being provided over the underlayer.
2. The coated article of claim 1, wherein the coated article is heat treated.
3. The coated article of claim 1, wherein in the overcoat the outer layer is at least two times as thick as the underlayer.
4. The coated article of claim 1, wherein in the overcoat the outer layer is at least three times as thick as the underlayer.
5. The coated article of claim 1, wherein the coated article has a visible transmission of at least 70%, and wherein the outer layer of the overcoat comprising silicon nitride further includes aluminum.

6. The coated article of claim 1, wherein the overcoat consists of the outer layer and the underlayer.
7. The coated article of claim 1, wherein the IR reflecting layer comprises at least one of NiCr, Ni, Nb, Cr, NbCr, Ag and Au, and/or nitrides thereof.
8. The coated article of claim 1, wherein the coating further comprises a contact layer comprising an oxide of nickel and/or chrome located directly between and contacting the IR reflecting layer and the underlayer comprising chromium oxide.
9. The coated article of claim 1, wherein the coating comprises first and second IR reflecting layers each comprising Ag, wherein the first and second IR reflecting layers are both located under the overcoat.
10. The coated article of claim 1, wherein the IR reflecting layer is sandwiched between and contacting each of a layer comprising an oxide of nickel and/or chrome and a layer comprising zinc oxide.
11. The coated article of claim 1, wherein the IR reflecting layer comprises NiCr, and wherein the IR reflecting layer which comprises NiCr is located between the underlayer of the overcoat and another layer comprising silicon nitride.
12. A heat treatable coated article including a multi-layer coating supported by a glass substrate, wherein the coating comprises:

at least one infrared (IR) reflecting layer; and

an overcoat located over at least the IR reflecting layer for protecting at least the IR reflecting layer, wherein the overcoat comprises an outer layer comprising silicon nitride and an underlayer comprising a metal (M) oxide and/or a metal (M) oxynitride, where the metal (M) is at least one of Nb, Hf, Ta, or a combination thereof.

13. The coated article of claim 12, wherein the coated article is heat treated.

14. The coated article of claim 12, wherein in the overcoat the outer layer is at least two times as thick as the underlayer.

15. The coated article of claim 12, wherein in the overcoat the outer layer is at least three times as thick as the underlayer.

16. The coated article of claim 12, wherein the coated article has a visible transmission of at least 70%, and wherein the outer layer of the overcoat comprising silicon nitride further includes aluminum.

17. The coated article of claim 12, wherein the overcoat consists of the outer layer and the underlayer.

18. The coated article of claim 12, wherein the IR reflecting layer comprises at least one of NiCr, Ni, Cr, Nb, NbCr, Ag and Au, and/or nitrides thereof.
19. The coated article of claim 12, wherein the coating further comprises a contact layer comprising an oxide of nickel and/or chrome located directly between and contacting the IR reflecting layer and the underlayer comprising chromium oxide.
20. The coated article of claim 12, wherein the coating comprises first and second IR reflecting layers each comprising Ag, wherein the first and second IR reflecting layers are both located under the overcoat.
21. The coated article of claim 12, wherein the IR reflecting layer is sandwiched between and contacting each of a layer comprising an oxide of nickel and/or chrome and a layer comprising zinc oxide.
22. The coated article of claim 12, wherein the IR reflecting layer comprises NiCr, Nb, and/or NbCr, and wherein the IR reflecting layer is located between the underlayer of the overcoat and another layer comprising silicon nitride.
23. The coated article of claim 12, wherein the metal (M) comprises Nb.
24. The coated article of claim 12, wherein the metal (M) comprises Hf.

25. The coated article of claim 12, wherein the metal (M) comprises Ta.
26. A heat treatable coated article including a multi-layer coating supported by a glass substrate, wherein the coating comprises:
at least one infrared (IR) reflecting layer supported by at least the glass substrate; and
an overcoat located over at least the IR reflecting layer for protecting at least the IR reflecting layer, wherein the overcoat comprises an outer layer comprising silicon nitride and an underlayer comprising a metal (M) oxide and/or a metal (M) oxynitride, where the metal (M) is selected from the group consisting of Nb, Hf, Ta, Cr, and combinations thereof.
27. The coated article of claim 26, wherein the coated article is heat treated.
28. The coated article of claim 26, wherein in the overcoat the outer layer is at least two times as thick as the underlayer.
29. The coated article of claim 26, wherein in the overcoat the outer layer is at least three times as thick as the underlayer.
30. The coated article of claim 26, wherein the coated article has a visible transmission of at least 70%, and wherein the outer layer of the overcoat comprising silicon nitride further includes aluminum.

31. The coated article of claim 26, wherein the overcoat consists of the outer layer and the underlayer.

32. The coated article of claim 26, wherein the IR reflecting layer comprises at least one of NiCr, Ni, Nb, Cr, NbCr, Ag and Au, and/or nitrides thereof.

33. The coated article of claim 26, wherein the underlayer which comprises the metal (M) oxide comprises at least one of Cr_2O_3 , Nb_2O_5 , Hf_2O_3 , Ta_2O_5 , and/or a combination of one or more of these materials.

34. The coated article of claim 33, wherein the underlayer is at least partially nitrified so as to form an oxynitride.